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Deposit Mobilization and the Political Economy of Specialized Financial Institutions: The Case of the Dominican Republic

by

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Introduction

One of the more striking features of financial markets in developing countries is their extreme degree of fragmentation, that results in limited access to institutional financial services, particularly for the rural population. Significant investments in technical assistance and directed credit programs implemented over the past decades by international donor agencies and developing country governments have attempted to improve the access of lower income groups to financial services. These efforts have achieved an extremely selective and short-run expansion in the supply of subsidized agricultural credit, as a result of significant delivery costs, loan delinquency, and internal contradictions that have undermined the financial viability of the intermediaries. These efforts have thus generally failed to stimulate the long-term, self-sustaining growth of these markets.

Over the past several years, greater emphasis has been placed in the literature upon the deleterious effects that foreign aid has had on the performance of financial markets as a result of price distortions introduced by the external assistance and the heavily subsidized credit programs. This recognition has been reflected in a discernable shift of foreign aid programs from the public to the private sector in an effort to strengthen market forces. In the financial markets of aid recipient countries this policy change has resulted in the withdrawal of funding from specialized financial institutions (SFIs), such as public-sector development banks and cooperatives, which had depended for much of their growth on access to subsidized external credit. Recently, the tendency has been to limit the explicit subsidies and to channel available credit, at "market" rates of interest, through private commercial and development banks.

Although this shift had been partly the result of a clear-cut emphasis on supporting the private sector in developing countries, it has also found ample justification in the generally poor performance of SFIs. The evaluation of the performance of public-sector agricultural development banks (ADRs) and other specialized financial institutions has generally been quite outspoken in its criticism. High levels of borrower delinquency, negative real rates of interest, high operating costs, and the use of obsolete banking technologies have been some of the negative aspects frequently cited in the literature.[1] Although other financial institutions, such as savings and loan cooperatives (credit unions), have received much less attention, with few exceptions they have been facing the same difficulties.[2]

The primary focus of the operations and the SFIs has been on the lending side, typically concentrated in one sector of the economy (agriculture or industry) and targeted to a specific segment of the population at subsidized rates of interest. The creation of these institutions was supported by the international donors and banks, as well as by the governments of developing countries in order to overcome actual or perceived financial market imperfections. Specifically, the observation of a highly skewed income distribution, the limited presence of private financial institutions in the rural areas, the restricted access of the majority of the population to financial services, and the lack of long-term finance provided the justification for these efforts.

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[1]See for example: V. V. Bhatt, "Development Banks in the Financial System," International Journal of Development Banking 1(January 1983):5-10. Carlos E. Cuevas and Douglas H. Graham, "Agricultural Lending Costs in Honduras," in Dale W Adams et. al., eds., Undermining Rural Development with Cheap Credit, Boulder: Westview Press, 1984. J. D. Von Pischke, "The Pitfalls of Specialized Farm Credit Institutions in Low-Income Countries," Development Digest 18(July 1980):79-91. Douglas H. Graham and Compton Bourne, "Agricultural Credit and Rural Progress in Jamaica," in J. D. Von Pischke et. al., eds., Rural Financial Markets in Developing Countries, Baltimore: The Johns Hopkins University Press, 1983, pp. 190-199. J. D. Von Pischke, Peter J. Hefferman, and Dale W Adams, "The Political Economy of Specialized Farm Credit Institutions in Low Income Countries," World Bank Staff Paper No. 446, Washington, D.C., 1981. Jeffrey Poyo, Los Bancos Agropecuarios y la Captacion de Depositos, Santo Domingo: Centro de Estudios Monetarios y Bancarios, 1986. Carlos E. Cuevas and Jeffrey Poyo, Costos de Operacion y Economias de Escala en el Banco Agricola de la Republica Domicana, Santo Domingo: Centro de Estudios Monetarios y Bancarios, 1986.

[2]For a discussion of some of these problems see: Jeffrey Poyo, "Development Without Dependence: Financial Repression and Deposit Mobilization Among the Rural Credit Unions in Honduras," unpublished Ph.D. dissertation, Syracuse University, December 1986, and Jeffrey Poyo, "Repression y Liberalizacion Financiera En Las Cooperativas De Ahorro y Credito En La Republica Dominicana," unpublished manuscript, June 1987.

For the purposes of this paper, a specialized financial institution is defined as a financial institution, of public or private ownership, whose implicit objective function(s) is not profit maximization. This paper will focus upon two very different types, both of which concentrate their operations in the rural areas: agricultural development banks (ADBs) and open-membership credit unions (CUs). Important conflicts exist in both cases concerning the various objectives that they are presumed to pursue. This provides a common thread for the analysis. The focus upon this common dilemma provides the underlying conceptual base from which to explain the similar performance-related problems emphasized in the literature.

The most relevant distinctions among financial institutions, which contribute to an understanding of the observed variations in operational efficiency, are not primarily a question of private or public ownership as generally argued. The similarities in the problems faced by CUs and ADBs suggest that this is not the case. What is critical is their mode of operation. If the SFIs respond primarily to market forces as a guide to their operations, then the question of ownership is relatively unimportant. In practice, however, market signals are ignored, and the institution's objectives are not clearly defined. On the contrary, these objectives are quite often ambiguous or contradictory.

The objective of this paper is to draw together some of the major lessons learned from various AID-funded projects with SFIs. These projects have concentrated technical assistance in the area of deposit mobilization within institutions that have traditionally offered only credit services. Specifically, the main focus will be the relationship between deposit mobilization, on the one hand, and the overall financial performance of these institutions on the other. This paper will analyze the extent to which deposit mobilization has influenced the financial viability of the intermediary, and whether or not this innovation tends to ameliorate or exacerbate the inherent conflicts within the institution's ambiguous objective function.

In spite of the concerted efforts of SFIs over the past decades, most of the conditions observed in rural financial markets which justified their creation are still present. The difficulties encountered in serving these markets, such as high information and transaction costs, have highlighted the reasons why these markets were not served by the traditional banking industry in the first place. It will be argued in this paper that with an adequate set of institutional incentives and appropriate technical assistance SFIs can effectively expand the access of middle and lower income rural clientele to financial services, without a need for sustained subsidization. However, unless the important conflicts inherent in their objectives are recognized and taken into consideration, the technical assistance programs designed to improve their performance have little chance of achieving their intended results.

The first section of this paper will focus upon the diverse objective functions of public-sector agricultural development banks and their inherent contradictions. The second will concentrate upon the conflicting incentives for participation in open-membership credit unions. It will relate the resulting distorted incentive structure to the poor performance of these institutions. The third section will present arguments that support the contention that financial performance is significantly related to the importance of deposit mobilization within the structure of the financial firm. In the next section, the results of the deposit mobilization efforts within the Banco Agricola and several credit unions in the Dominican Republic will be reviewed.

The Political Economy of Public-Sector Agricultural Development Banks

The public-sector SFIs, such as the ADBs, have served two major and very different objectives for the governments of developing countries. The most obvious has been to provide financial resources in support of government policies in the agricultural (rural) sector. This has been done by providing subsidized credit to specific target groups. Second, the SFIs have also been a mechanism to obtain access to foreign currency for balance of payments support at highly subsidized rates of interest. The traditional view of subsidized credit highlights its presumed role as an important instrument to solve everything that is wrong in the rural economy, such as a skewed distribution of income and low agricultural productivity and production. This view has provided a justification for the large volume of funds channeled by donor agencies to these SFIs. The central banks have typically assumed the risk of exchange rate fluctuations.

Donor credit projects clearly fulfill the needs of developing country governments. In addition, these projects have found support among international donor agencies, since they greatly facilitate the disbursement of large volumes of funds with relatively little administrative effort while, at the same time, they presumably improve the absolute income level and income distribution in developing countries.

For the administrators of ADBs, however, there exist important conflicts among the objectives which derive from their dual role as managers of financial institutions, on the one hand, and disbursement agents for external and internally funded subsidized credit programs, on the other. These administrators also have their own implicit objective function and may thus attempt to maximize the size of the institution, as measured by loan portfolio, number of branch offices, and total assets. At the same time, they have to protect the financial viability of the institution. As a public sector institution heavily dependent upon external credit, however, they are frequently expected to maximize the objective functions of their governments and of other creditors which may come into direct conflict with the ADB's own objectives.

Some of these exogenous objectives may include, for example, the provision of subsidized production credit in order to maximize the short-term production of basic grains; support for an agrarian reform program; income transfers to the rural poor; the granting of incentives for crop substitution projects; and participation in special environmental protection programs. Since the ultimate goal inherent in these credit programs go far beyond, and may take precedence over, the basic objectives of financial intermediation, the possibility for conflict arises. These exogenous objectives may be in conflict with those of the ADBs in so far as they tend to undermine the real growth of the institution through increased borrower delinquency (because of the riskier target group); higher operational costs, due to special supervision and reporting requirements; and negative real rates of interest.

Despite the close financial linkage, the relationship between the ADBs and their major creditors (external and internal) is a highly conflictive one. Creditors have been primarily concerned with the target population for whom their programs are designed, and have ignored the impact of limited intermediation margins and of costly supervisory and reporting requirements upon the banks. Likewise, internal controls designed to protect the financial viability of the ADBs (more rigorous loan analysis and aggressive loan recovery practices) may not be compatible with these externally-funded programs if, when applied, members of the target population are excluded from the institution's portfolio. This typical dilemma arises with loans to agrarian reform programs with poor credit records, in which loan analysis and collection procedures are sacrificed "for the national interest".

The more traditional view is that, since these institutions are public-sector development banks, they cannot have an objective separate from that of the central government and that their goal should be the support of programs considered to be in the national interest. If this argument is accepted, an analysis of institutional performance becomes very difficult. Such an evaluation should include the presumed benefits obtained by the target groups as a result of the institution's credit programs. This led to an emphasis on loan impact studies by international creditors. However, it soon proved difficult to determine the relative impact of credit on output at the farm level. At the same time serious questions were raised with respect to the ability of these subsidized credit programs to achieve their intended goals of improved income distribution and increased agricultural productivity. More recently, attention has focused upon the impact of these programs on the financial viability of the intermediaries.

If the major premise upon which the subsidized credit operations of the ADBs have been based does not hold, then clearly the objectives of these intermediaries must be reassessed. The lack of access to financial services continues to plague rural populations and, with the serious decapitalization of ADBs, these institutions are having less and less impact on the rural economy, as the real size of their portfolios declines. Because of their dependence upon external resources, their lending operations witness wide swings from year to year. This makes investment on the part of borrowers difficult to plan, because of the uncertainty with regard to the supply of credit. In addition, due to severe limitations of resources, the rationing by the ADBs imposes high transactions costs on borrowers which fall disproportionately upon small and medium farmers.

The major difficulty facing low and middle income rural producers is not the relative price of financial services, but access to them at any price, due to high transaction costs and limited supply. The objective of these financial intermediaries should focus on expanding the real supply of financial services to the rural population, while obtaining a significant reduction in transaction costs. This supply should be at prices that cover the costs and risks for the intermediary of providing these services. In those cases in which the costs of operation are simply too high for these institutions, innovative financial linkages with other types of intermediaries can be devised. In some distant areas of limited population concentration, the ADB's role can be that of a financial wholesaler, while the retail operations can be carried out by credit unions or other similar types of local institutions, whose operational and information costs structure is more congruent with the given target population.

Although institutional performance indicators such as loan recovery and operational costs have recently received greater attention from external creditors, in the past they have tended to play a secondary role to specific requirements of loan targeting and supervision of credit programs. Each major creditor maintained its own relationship with the ADBs insulated from that of other creditors. This often led to serious contradictions among the various programs managed by these banks. As long as concern on the part of the creditors with respect to institutional performance played a secondary role, the managers of these institutions lived fairly uneventful lives as disbursement agents. As a result of questions raised regarding their targeted credit programs, however, international creditors have begun to focus more upon intermediary performance. The increased awareness of deficient performance has led to severe criticism of the SFIs, but sufficient consideration has not been given to the serious conflicts that face the administrators of these banks.

Technical assistance programs designed to improve the efficiency of intermediaries will not fulfill their intended goals unless they take into consideration the conflicting objectives facing ADBs. The problems of financial performance that face these intermediaries and their potential solution are subtle and will require more than the simple stipulation by donors of loan delinquency and administrative cost targets.

Political Economy of Open Membership Rural Credit Unions

According to the literature, two different groups have been assumed to define the optimization problem for the financial intermediation firm: the owners of the institution or the firm's management.[3] Where firms are assumed to maximize profits, stockholder's utility (homogeneous for all stockholders) is a function of the expected capital gains and dividend distribution. In the case of the CUs, where the owners are the sole clients, their utility function is not only affected by dividend payments at year end, but also by the institution's interest-rate structure, transaction costs, collateral requirements, and the other dimensions of loan and deposit contracts that reflect the quality of the financial services received by clients. Since their shares cannot appreciate in face value, they benefit only through the distribution of profits and the value of those services.

Financial services are generally provided through individual initiatives and thus collective or group action is not required. However, when these services are provided through a cooperative, collective action on the part of CU members is indispensable for its administration. Despite the fact that there is a common objective among CU members, namely, to protect the cooperative's financial viability with an efficient administration, it does not follow, however, that they will voluntarily participate in this effort. As a result, these financial institutions will supply less than optimal levels of internal administrative control, loan recover, and promotional and educational efforts.

Olson points out that in a mutual organization such as a credit union, since the attainment of group objectives implies that a collective or public good has been provided, and since none of the members can be excluded from the potential benefits, there are no incentives to contribute to the common effort.

[3]Anthony M. Santomero, "Modeling the Banking Firm: A Survey", Journal of Money, Credit, and Banking. 16(November 1984):576-602.

Unless the membership is small, or unless there is coercion or positive inducement to act in the common interest, "rational self-interested individuals will not act to achieve their common or group interests".[4]

CUs are unique in that they are privately-owned financial institutions whose members are at one time owners and sole clients. Unlike other forms of mutual organizations, CUs are proscribed from providing financial services to anyone besides their members. The entire supply of deposits and demand for loans comes from their owner-clients. The fact that CU members carry our financial transactions on both sides of the market, as depositors and borrowers, introduces interesting complications into the analysis. Most policy decisions are inherently conflictive since they carry important income redistribution consequences among the owners.[5]

In a highly competitive financial market, the financial policies of the CUs may not depart significantly from those of a typical profit maximizing firm. In a developing country where financial markets are characterized by an extreme degree of fragmentation and significant transaction costs, access to credit and deposit services may be more important in the member's utility function than the potentially higher dividends achieved through profit maximization. Most importantly, the utility of all members cannot be represented by a single homogeneous utility function, since the utility of members who are primarily depositors is positively correlated with the interest paid on deposits, implying high loan rates, while the borrowers' utility is negatively correlated with high rates of interest on loans.

Although credit unions were originally conceived as "complete" financial intermediaries that offer both deposit and credit services, the cooperative philosophy that has traditionally influenced their operations has focused primarily upon high cost of credit in informal financial markets as the raison d'etre of the credit union's existence. Rigid pricing policies in nominal terms and access to highly subsidized external credit, in the presence of domestic inflation, has distorted the internal incentives for CU member participation which ultimately determines membership composition. CUs that have had access to externally subsidized credit have designed their growth

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[4]Mancur Olson, The Logic of Collective Action. Cambridge: Harvard University Press, 1971, pp. 2.

[5]See Mark J. Flannery, "An Economic Evaluation of Credit Unions in the United States," Research Report, Federal Reserve Bank of Boston, 1974, and Ryland A. Taylor, "The Credit Union as a Cooperative Institution," Review of Social Economy. 29 (September 1971):207-212.

strategies around the promotion of "low cost" credit to the detriment of deposit services. Under this set of incentives, which penalizes net savers and rewards net debtors, the vast majority of the members join the CU with the expectation of obtaining a loan. Though many of these individuals could probably be net savers in their relationships with other financial institutions, their reason for joining the CU is the expectation of gaining access to flows of subsidized credit. The pricing and growth strategies followed by these institutions have not only severely limited opportunities for domestic financial savings mobilization, but have also resulted in "borrower-dominated" financial institutions open to serious problems of moral hazard and risk exposure in their administration.

In addition to the underlying problems of eliciting active participation in the administration of mutual organizations, other contradictions exist. Given their conflicting objectives as clients and owners and borrowers and depositors, the policies that maximize the members' short-term goals may take precedence over policies necessary for the long-term financial health of the institution. For example, member-borrowers at any point in time, whether delinquent or not, clearly do not have a personal interest in participating in any collective effort to tighten loan evaluation and loan recovery procedures since rigorous administrative controls and more severe sanctions applied to improve collection efficiency will affect their interest as clients.

A CU that is successful at mobilizing voluntary savings deposits not directly tied to the expectation of obtaining a loan will attract individuals whose interest in the institution is primarily for depository services. Though an expectation of access to credit influences their selection of financial institutions, of greater importance will be the effective rate of return on their deposits, the level of transaction costs, and the general quality of the service offered. Their interests are not the same as those of individuals who join the institution primarily to gain access to subsidized credit. For this reason, this group of members (net savers) is likely to bring pressure on the institution to ameliorate the problems of moral hazard prevalent in borrower-dominated CUs.

With the participation of net depositors, the financial intermediation by CUs will begin to take on characteristics of a zero-sum game in which the implicit subsidy received by defaulting borrowers would be charged to other members in the institution, as opposed to an external creditor. Those members who perceive the greatest potential loss from high levels of borrower delinquency will be more prepared to incur the opportunity costs of time and effort to attain the collective good of improved loan administration. Efforts on the part of external creditors to improve the loan collection and operational efficiency of CUs, which emphasize more loan supervision, higher collateral, or greater sanctions for delinquency, will only increase the costs of their credit delivery programs without achieving the intended results. Unless the essential elements of moral hazard and conflicting objectives are adequately recognized, greater credit restrictions will succeed only in rationing credit away from those groups within the rural population for whom these programs are designed.

Deposit Mobilization and Performance in SFIs

As a result of their financial dependence on a small number of foreign and domestic lending institutions, the services offered by and the administrative structure of SFIs have reflected the implicit objectives of their creditors. In a study of the functional distribution of the costs of an agricultural development bank in Honduras, for example, an unusually high concentration on the lending side was observed. This distribution was found to be diametrically opposed to that observed for financial intermediaries that depended primarily upon the domestic money and capital markets as their source for loanable funds.[6] This administrative structure of the ADB clearly reflected the objectives of its creditors, (i.e., international donors), whose concerns were limited to credit delivery, rather than resource mobilization or institutional development. Because deposits were not contemplated within the utility function of the donors, they were not considered to be an important service from which the rural population can derive significant benefits. In fact, as a result of the creditor's own institutional objectives, significant financial disincentives for domestic deposit mobilization have been an integral element in the design of these traditional credit programs.

The neglect of deposit services has been the result of three interdependent factors. In contrast to credit, which has always been justified from a social cost/benefit perspective, deposit services have usually been evaluated from an institutional or private cost/benefit viewpoint. Second, it has been a widely-held belief that the effective demand for deposit services would be limited due to the relatively low income levels of the rural population and their presumed inability to save. Further, it has been argued that even if financial resources could be mobilized from the public, since the interest paid on deposits would have to be competitive with local financial markets, this higher financial cost would necessarily have to be passed on to the

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[6] This administrative emphasis on lending can be observed with an analysis of functional cost structure. See Carlos Cuevas and Douglas H. Graham, "Agricultural Lending Costs in Honduras" in Dale W Adams et al. Undermining Rural Development with Cheap Credit, Boulder: Westview Press, 1984.

borrowing clientele. The assumption that the majority of SFI clients are unable to pay higher loan rates of interest made deposit mobilization an unattractive alternative.

This approach has overlooked two important considerations. First, deposit services have a positive impact on individual welfare by satisfying a store of wealth and transactions function. This is particularly valuable, considering the highly specialized nature of the rural economy, where income flows are subject to wide annual fluctuations. In addition, through the growth in volume and breadth of rural financial intermediation, deposit mobilization contributes to an expanded supply of loanable funds available to a greater proportion of the population. Under inflationary conditions, however, the real rates of interest paid on deposits remain consistently negative and individual welfare is improved only by the value of transaction balances. This is clearly not the case when interest rates are positive in real terms. Because of the effect that asset diversification has on total returns, access to low transaction costs, highly liquid, and secure financial instruments which provide a positive rate of return may represent the most cost-effective method of achieving greater stability in rural incomes.

Second, competitive pressures within financial markets, which in these institutions are introduced exclusively on the deposit side, make the institution's administrators more conscious of their financial margins, and operational costs. While ignoring the significantly positive impact of competition in domestic money and capital markets on institutional development, the SFIs have been relegated to financial dependence and institutional inefficiency and fragility. These are hardly optimal characteristics for institutions which are expected to provide financial services to the most costly and risky clientele, which requires the development of innovative approaches in order to effectively reach this clientele. The failure to develop the mechanisms for domestic deposit mobilization within SFIs has not only had a negative impact on institutional development, but also on the growth of rural incomes.

The two most important elements inherent in domestic deposit mobilization which have a significant impact on institutional development are, first, the redistribution of the risks of financial intermediation towards the SFI and risk decentralization within the institution and, second, the pricing of resources more in keeping with local opportunity costs. The reassignment of risk bearing towards the SFI will tend to reduce the problem of moral hazard and loan delinquency inherent in their lending operations. When their clients participate only on one side of the market, there are no elements of a zero-sum game and financial intermediation is conducted between external "savers" (creditors) and the institution's clients (borrowers). If, in addition, future access to these "savings" is believed to be independent of institutional performance as a result of signals from the creditors, then financial administration will deteriorate. Likewise, if the price (explicit interest cost and administrative risk) of the loanable funds is too low, the managers of the institution will have no incentive to use them efficiently. The next section will investigate the relationship between the performance of a particular SFI and the introduction of deposit mobilization. It will focus on the possible obstacles and imbalances created by the introduction of this new service.

Deposit Mobilization and the Agricultural Bank of the Dominican Republic.

The Banco Agricola is a public-sector bank whose portfolio is predominantly composed of short-term credit highly concentrated in financing rice production. The bank has over 30 branch offices distributed throughout the rural area. This represents the widest geographical coverage of any financial institution in the country. Until recently, however, the only service provided was credit. The growth in the bank's portfolio over the past 16 years can be divided into three distinct sub-periods: 1970-78, 1979-82, and 1982-86. Throughout the first period, the bank's portfolio grew at an average annual rate of 11 percent in nominal terms. Subsequently, in response to the devastating effects of Hurricane Frederick, the portfolio expanded at an annual rate of over 22 percent between 1979 and 1981. It slowed in the last period to an average of only 2.6 percent per annum in current pesos.

Chart 1 in Appendix I shows that between 1970 and 1978, despite a relatively low inflation rate, the bank's loan portfolio in constant 1980 pesos did not grow. During the second period from 1979 to 1982, however, it expanded by about 33 percent in real terms. Finally, during the last period the real value of the bank's portfolio declined by about 48 percent. In Chart 2 the unusual rate of growth in loan disbursement (as a result of the hurricane) is clearly evident. This rate returned in the last period to the trend line established between 1970-1978. By 1986, annual disbursements in constant 1980 pesos were about equivalent to what they had been in 1973 and the real loan portfolio reached its lowest level for the entire period.

It is interesting to note in Chart 3 the extremely wide fluctuations observed in the growth of annual real loan disbursements, which to a large extent is a reflection of the institution's dependence upon sources of funds captive of external and internal bureaucratic decision-making. From a negative growth of 5.2 percent in 1971, disbursements in real terms grew at an annual rate of almost 30 percent 3 years later, declining again to negative growth by 1977. After real growth rates of over 23 and 24 percent in 1978 and 1979, growth fell to minus 25 percent in 1981.

The seriousness of the decapitalization process can be confirmed in Chart 4, which presents the number of hectares financed with annual loan disbursements. The number of hectares financed rose from 112,000 in 1970 to about 254,000 by 1980, but fell dramatically between 1980 and 1986 and reached a level of less than 75,000 hectares during this last year. With the decline in annual disbursements, from its peak of 153 million pesos attained in 1980 to a value of less than half this by 1986 (in 1980 pesos), exacerbated by the international debt crisis and the limited access to external credit, the bank turned to deposit mobilization as a new institutional strategy to stem the financial decline it experienced since 1981.

After over a year of discussion and preparation, the bank in mid-1984 offered its clients, on a voluntary basis, access to both passbook savings accounts and time deposits. Financial certificates were offered in 1987. The rates of interest paid on savings accounts and time deposits have been controlled by the Central Bank at levels below the rate of inflation. Banco Agricola obtained preferential treatment with regard to the reserve requirement, which was set at 10 percent vis-a-vis 30 percent for commercial banks. In addition to the differential reserve requirement, the bank entered the rural market with a slight advantage vis-a-vis the commercial banks considering geographic location and interest rates. The bank has been authorized to pay up to 6 percent on savings accounts, 10 percent on time deposits, and 16 percent on financial certificates. Each rate is slightly above what commercial banks can pay.

Although the initial intention was to limit deposit mobilization to 4 or 5 branch offices for the first two years, the bank quickly expanded the service to all offices. Given the existence of the generally underutilized physical infrastructure and personnel, there were important unused scale and scope economies available for the provision of this service. After three years of operations, the bank had mobilized a total of 56,784 accounts and deposits with a total volume of 15.5 million pesos (4.8 million U.S. dollars; see Chart 5). By June 1987, almost three quarters of the funds mobilized came from passbook savings accounts with 13 and 12 percent from time deposits and financial certificates, respectively.

Although the bank has been successful in mobilizing a significant volume of resources through its deposit services, primarily with passbook savings accounts, the most serious obstacles in this effort have been the high transaction costs faced by their clientele because of the small size of their accounts and the bank's limited ability to remain competitive in rapidly changing financial markets. Chart 7 shows that the volume mobilized through time deposits began to decline from September 1985. This disintermediation was the result of changes in Central Bank regulations that affected the relative competitiveness of this instrument vis-a-vis the financial certificates.

Because of the high minimum deposit required and the relatively high rate of interest paid (RD$100,000 at 14 percent per annum), the bank did not utilize financial certificates in the early months. However, seven months after the operations began the Monetary Board reduced the minimum deposit on financial certificates to one tenth of what it had been, and allowed the interest rate to be determined by bank competition ranging in a wide band from 9.5 to 19 percent per annum.[7] Given the relatively high inflationary expectations and the competition from the non-regulated financial markets, the interest paid on these certificates rapidly reached the ceiling. These certificates began to compete in the same segment of the market with time deposits and similar instruments of lower denomination utilized by other institutions, that paid almost double the rate permitted on these instruments. The impact of this regulatory change on the majority of institutions was an increase in their cost of funds as financial certificates substituted other instruments upon maturity. For Banco Agricola which could not offer the certificate, this resulted in financial disintermediation.

Although the administrators of the bank were warned about the impending danger to their savings mobilization program if they did not obtain authorization to offer the financial certificates, the decision to do so was delayed for a year and a half. This delay was due to the expectation of receiving a large injection of funds from one of their major external creditors, which would have allowed them to avoid the difficult decision. Since the interest paid by the competition on these financial certificates had reached (and surpassed in some cases), the legal ceiling, which in turn was equal to the highest rate charged by the bank on its loans, the decision to utilize this instrument was preceded by very serious debate within the bank.

In addition to maintaining the competitiveness of its deposit services, another constant preoccupation has been the bank's ability to lend out the funds mobilized rapidly enough to maintain profitability, given the much thinner interest-rate margin available on these funds. Chart 8 presents the percentage of disposable deposit funds (net of reserve requirements) loaned out over the three years. As can be seen, this percentage has fluctuated between 50 and 80 percent, although the bank has faced

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[7] Subsequently, the maximum was reduced to 16 percent per annum on the financial certificate.

a substantial excess demand for credit. There are two factors which account for this apparent contradiction. First, there has been extreme caution on the part of the bank's Board of Directors, as witnessed by very restrictive guidelines for lending these resources in the initial stages. Second, bureaucratic delays have resulted from credit approval and disbursement practices developed after many years of channeling subsidized external credit. These practices were incompatible with the efficient intermediation required for a savings mobilization program.

Despite the fact that the program has only been operating for a few years and the volume of resources mobilized relative to the size of the bank is still small, this program has made a contribution to reduce the excess demand for credit faced by the bank. The shift in risk bearing from the Dominican government to the bank represents a significant departure from past practices and an important challenge to the bank's administrators and managers. This program more than any other has had a significant impact on the institutional culture in which the traditional operating procedures and objectives are increasingly being questioned. As deposits become more important as a source of funding, the inherent conflicts within the institution's diverse objective functions will have to be addressed.

The success this new service can have in resolving some of these conflicts depends upon whether deposit mobilization is viewed as a short-term stop-gap measure, or as a long-term institutional strategy. It is not coincidental that after 40 years of operations, the decision to institute this service was made at the time when access to subsidized external credit had disappeared, and the bank was faced with serious decapitalization and a significant excess demand for credit. The future of deposit mobilization as an important factor in the bank's overall growth strategy will very likely depend less upon the bank's own administrators and more upon the decisions and signals of its major creditors.

Deposit mobilization is in direct conflict with the bank's traditional supply-leading mode of operation. As a result some elements of its institutional culture have become obstacles for the effective implementation of this new service. When the only service provided was credit, for which the bank faced perennial excess demand, employee performance incentives, infrastructure, image, service to clientele (transaction costs), and marketing were of little relevance. With the introduction of deposit services, the Bank now is placed in the position of having to "sell" its services.

Operational inefficiencies in information management, for example, have become magnified with the implementation of deposit services because the requirements in this area are much more acute than in the case of credit services alone. The need for accurate and timely information is vital for such operations as monthly interest calculations (57,000 accounts), inter-office withdrawals, and reserve requirement monitoring. Before the introduction of deposit services, liquidity management for branch level managers was limited to projecting expected demand (always greater than supply) and requesting funds from the central office when this demand became effective in the form of loan applications. Once deposit mobilization was introduced, however, the branch manager must be transformed from a passive disbursement agent into an active and even aggressive financial manager. With a new, independent, and less predictable source of funding, the branch manager must adequately balance the flow of deposits and the liquidity needs of his depositors with the demand for loans. Deposit mobilization presents new challenges to these managers in terms of liquidity and reserve management, and control of overhead and interest margins which they had never confronted in the past. Under these conditions, it is not surprising to note that some branch managers have resisted the introduction of deposit services.

With the delegation of greater responsibility to the branch level as a result of of deposit mobilization, the managers of Banco Agricola branches displayed clear signs of risk aversion. In large part the extremely low delinquency rates observed in the portfolio financed with deposits has been the result of more careful borrower selection, since one of the restrictions of the program was that only the best clients could borrow these funds. Obviously this process of client selection reduces the average riskiness of the loans made with local deposits and increases the risk associated with those who borrow from the bank's other sources of funds. It would not be surprising to find lower than average delinquency rates in the portfolio of own funds and higher than average delinquency in the portfolio of other funds.

The reduction in moral hazard on the part of branch managers as a result of their assuming a greater proportion of the risk is desirable, because it will reduce an unnecessary source of delinquency and default by borrowers whose ability to pay is overshadowed by their desire to take advantage of the bank's paternalistic behavior. Deposit mobilization in and of itself, however, will not resolve the essential problem of the long-term, stable access to financial services for the more costly and risky borrowers (small farmers), unless access to these resources is made a function of past repayment history and not simply a function of the borrowers ability to provide loan guarantees. Although there is a clear need to reduce the excessive risk taking of the past, it is clear that in the same way as paternalistic attitudes lead to problems of moral hazard, the lack of certain guarantees for the financial intermediary may lead to an excessive degree of risk aversion.

Only when the bank earns a wide enough financial margin so that it can cover the greater risks and costs of servicing more risky borrowers and only if the bank remains accountable for loan recovery, and if the borrowers are given a clear signal that access to the resources mobilized will be is a function of an acceptable credit history with the bank, then deposit mobilization will succeed in improving the long-term access to credit for the small and medium borrowers. There may be some groups of clients, however, that the Bank cannot service, given its relatively high cost structure. In these cases the bank can enter into financial arrangements with local intermediaries and serve as a financial wholesaler. The next section will present the results of a similar program with credit unions. This experience suggests some interesting conclusions with respect to the CUs comparative advantage in serving a clientele which may be too costly and risky for banks.

Deposit Mobilization Among Rural Credit Unions

The rural population in the Dominican Republic faces severe obstacles in obtaining access to the services of formal financial institutions. In the case of the private banks, the high costs and risks of serving this population have limited their expansion into these markets. In contrast, credit unions have a significant comparative advantage in serving a rural clientele because of their lower administrative costs and access to local information. In addition, the lack of competition in these markets offered the CUs a very good opportunity to expand their operations with a significant degree of flexibility. The Dominican Republic credit union movement is among the oldest in Latin America, but it is most likely the weakest set of institutions of their kind in the region. Their lack of experience in deposit mobilization and general administration made the implementation of a project with these institutions an extremely difficult and risky endeavor.

The Dominican Republic credit unions, as in most of Latin America, are not considered part of the national banking system and therefore are not subject to the banking law and regulations. Aside from a general usury law which is universally ignored in all financial transactions, the only significant regulation that limits the operations of CUs is a ceiling on dividends paid on member shares, stipulated in the Cooperative Law at 5 percent per annum. It is quite curious (and fortunate) that, while in most of the CU literature the high cost of credit is generally described as the primary problem, the law places a ceiling on dividend rates, but not a ceiling on loan rates. Loan rates are left for each cooperative to set in their respective by-laws. Historically, since most CUs in the Dominican Republic have not used liability instruments other than share accounts, deposit rates have not been considered in the cooperative law or in the individual CU by-laws. Therefore, with the sole exception of share accounts, CUs have complete freedom to establish their pricing structure in congruence with their institutional objectives.

The primary objective of working with these cooperatives was to study the possibility of expanding rural financial services through using domestic deposit mobilization as the basic strategy for growth and development. During the first year, four CUs were provided with intensive technical assistance with primary emphasis on financial administration. The most important thrust of the assistance was to lay the groundwork for significant changes required in operational and administrative structure. Technical assistance was also provided in the areas of basic accounting, interest rate policies, asset (credit analysis, delinquency control) and liability management, marketing, and general analysis of the economic environment. The final decision to carry out the policy reforms, as well as the extent of the changes, was taken independently by each CU's board of directors by the end of 1984. Beginning in 1985 all four institutions were mobilizing deposits from current members and attracting a significant number of new members as a result of the introduction of two competitively priced liability instruments: passbook savings accounts and time deposits. The passbook accounts differed from the traditional share accounts in that they are completely liquid, pay a much higher rate of interest, and are not tied in any explicit way to credit services. Because each CU made its decisions independently from the others, a wide range of interest rate structures can be observed.

In three of the four credit unions, a full-time staff had to be hired as only part-time managers were the norm. In addition, some limited investments in physical infrastructure were carried out in all institutions. In order to cover these increased costs and investments, a temporary operational subsidy was provided to be phased out after two years. The boards of directors of all credit unions were conscious of the temporary nature of this subsidy, and that ultimately their survival depended on their ability to become profitable financial institutions. The major thrust behind the institutional reforms was to raise the interest rate structure to "market" levels, and to widen the operating margins in order to counteract rising inflationary expectations and cover operating costs and lending risks. In general, the interest-rate structure observed in the non-regulated markets, which represented the closest indicator to market rates, was used as a guide to establish interest rates in these institutions.

Despite the fact that the nominal rates of interest on loans were doubled in some CUs, the effective rates in fact remained constant or may have even declined. The reason for this apparent contradiction was that the CUs require share accounts as compensating deposits. These accounts earn a maximum of 5 percent per annum (if there are year-end profits to distribute).

Because of severe liquidity problems, in the past it was not uncommon to find that the required balances in share accounts amounted to 50 percent and 67 percent of the value of the loan. This had an obvious impact on the cost of the net funds obtained. The payment of competitive deposit rates of interest, significantly expanded the supply of loanable funds in the CUs and permitted an increase in the leverage ratios from 1.5:1 or 2:1 to a maximum of 10:1, depending upon the borrower's ability to pay.

The charts in Appendix II illustrate the development of the four CUs that participated in the project. Chart 1 presents the loan portfolio of each CU in current and constant pesos. In all cases the growth in loan portfolio was significantly greater in 1984 than in other years because of the operational and administrative reforms. The real supply of credit in all CUs at the time of implementation was at best stagnant, and in some serious decapitalization was evident. In spite of a rise in the inflation rate in 1985 to almost 38 percent, every institution was able to expand the real supply of credit to its membership. As demonstrated in Chart 2, this growth was made possible due to the savings mobilization efforts, as a result of a combination of paying relatively high rates of interest and reducing transaction costs for depositors.[8]

The interest-rate reforms and the effect on the financial margin can be observed in Charts 3 and 4. Some of the CUs increased their interest rates more than others, and those that did not raise them sufficiently encountered difficulties in mobilizing savings. Despite the recommendations, the Santa Lucia credit union paid 12 percent per annum on passbook accounts and 13 percent on 12-month time deposits. As a result, it did not mobilize any time deposits until 1986 when the interest rate was raised to 18 percent. Chart 4 shows that in all cases the financial margin between loan rates and the cost of funds (including share accounts) rose significantly. The increase in the financial margins was necessary in order for the CUs to reach their break-even point at a relatively small size. Even if these margins were to translate into profits, however, they will be distributed to their owner-clients at the end of the year as the CUs grow in size. Profit retention is the only avenue open to capitalize the CUs, since share accounts, although referred to as

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[8]Transaction costs in these institutions were quite significant. For example, the credit unions typically would not maintain cash on hand and would give their members checks drawn on a local bank which would then have to be cashed.

"social capital", are not capital from a strictly financial point of view, but simply anther liability instrument.[9]

The average operating costs shown in Chart 5 reflect a very different development in each institution. For example, in La Vega the operating costs increased during the first year and then declined as the growth of their assets outstripped the growth in their costs (7.8%, 9.9%, and 8.7%, respectively, between 1984 and 1986). In 1983/84 San Jose's average costs stood at 3.6% and then experienced a decline in 1984/85 to 3.5% and a slight rise in 1985/86 to 3.7%. Because of its smaller size, Vallejuelo shows the highest costs. Before the project, this CU had only one part-time employee, while two years later it had four full-time staff. Its operating costs in relation to its average assets over this period rose from 7.7 to 19.8 percent. In the case of Santa Lucia, despite a ten-fold increase in its yearly operating costs between 1983 and 1986, these costs declined from 15.7% in 1984 to 8.8% in 1986 as a proportion of average assets. Despite the cost increase, as can be observed in Chart 6, the return on member's shares increased in all cases.

The most interesting development in three of the four institutions has been a significant reduction in borrower delinquency. The San Jose credit union has been an exception to this rule because its delinquency has consistently been below 5 percent. Before the introduction of this project, delinquency control was non-existent. When a delinquency analysis was carried out in each of the three institutions, it was above 50 percent. Major improvements have been obtained and only in one of them does it still reach 16 percent, while in the other two it is below 10 percent. The decline in this ratio is partly the result of growth in the loan portfolio, but the delinquency among the loans made after the implementation of the project is very limited. These results reflect a significant change in attitudes towards loan delinquency and control which is in part the result of the decline in moral hazard problems within these institutions.[10]

The institutional performance of all four CUs improved significantly with the implementation of this project, clearly benefitting the membership though an expanded and more stable supply of financial services. The significant membership growth

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[9]Although partial withdrawals of share accounts are not permitted, members effectively withdraw their investment in these institutions through "automatic" loans: loans equal to the balance in their share accounts. In fact very high delinquency rates are a reflection of membership desertion.

[10]The average maturity of the portfolios is between 12 and 18 months.

in the institutions implies that they are servicing an important need in the communities where they are located. Increased financial margins have improved their financial stability making them more capable of assuming greater risks, and in so doing reaching a greater proportion of the low and middle income population. With the apparent fall in the Dominican Republic inflation rate in 1986, there have been some pressures to reduce interest rates in the economy. They should be revised downward if inflationary pressures subside. However, in 1987 there was a significant rekindling of inflation and probably the interest rate structure in most of these CUs has turned negative again.

Conclusions

The conflicting objectives of specialized financial institutions and their isolation from competitive market forces resulting from their excessive external financial dependence has created extremely weak financial intermediaries. In the case of the ADB, the conflicting objectives of their creditors and financial dependence creates an extremely centralized administrative structure in which the assignment of responsibility and therefore effective management evaluation is often difficult if not impossible to implement. Likewise in the case of CUs in which internal conflicts of interests result from biased incentives for participation which creates a borrower-dominated institution, serious problems of moral hazard undermine their financial viability.

Deposit mobilization has typically not been considered within the social welfare function of the external creditors of the SFIs, and as a result deposits have typically been neglected. Deposit mobilization tends to transfer the risks of financial intermediation towards the SFIs and promotes administrative decentralization. In the case of the ADBs the branch offices gain access to an independent source of funding which not only provides some degree of independence from the main office, but also transfers risk-taking to the branch office. Although the reassignment of risk-taking to the local level may tend to improve administrative efficiency, the financial margins provided must be sufficient to cover the risks and costs of providing rural financial services.

The reform of financial policies within the rural CUs to promote the mobilization of savings deposits through relatively high rates of interest and low transactions costs, substantially modifies the incentives for member participation. Net savers are attracted to the institution whose incentive to participate in effective administration is greater. This restructuring of institutional incentives tends to reduce borrower domination, and reduces the serious problems of moral hazard within the institution by introducing some elements of a zero-sum game.

The introduction of deposit services which provide an attractive combination of security and return (adjusted for transaction costs) to the depositor in communities that previously did not have access to these services can become a important instrument not only to slow the drain of resources from rural areas, but there is some evidence that the flow can be reversed. In a perfectly functioning financial market, the transfer of resources from the rural to the urban sectors would reflect the underlying profitability of the activities in each sectors. However, within the financial markets of the LICs, these flows reflect the underlying fragmentation rather than relative profitability. In Vallejuelo, for instance, the savings mobilized would probably not have entered the financial markets, or they would have been transferred out of the local community. In this community local moneylenders have become important depositors, and the CU has been able to mobilize deposits from other towns and as far away as the capital city. Although deposit mobilization has the potential of improving the financial viability by increasing financial independence and by transferring the risk-taking function to the local level, access to external resources will continue to be an important complement for the locally mobilized deposits.

The degree to which the SFIs administrative efficiency can be improved, depends on the importance of deposit mobilization within their financial structure, and restructuring the financial relationships with their traditional creditors so they do not undermine incentives for domestic resource mobilization. The transfer of risk-taking in financial intermediation away from the local level, that takes place with government guarantees and subsidized credit programs from international donor agencies, works at cross purposes with the incentives and signals provided through the mobilization of deposits at the local level.

Apendix I

BANCO AGRICOLA OF THE DOMINICAN REPUBLIC

CHART 5

TOTAL SAVINGS MOBILIZED: JULY 1984 - JUNE 1987
PASSBOOK, TIME DEPOSITS, FINANCIAL CERTIFICATES

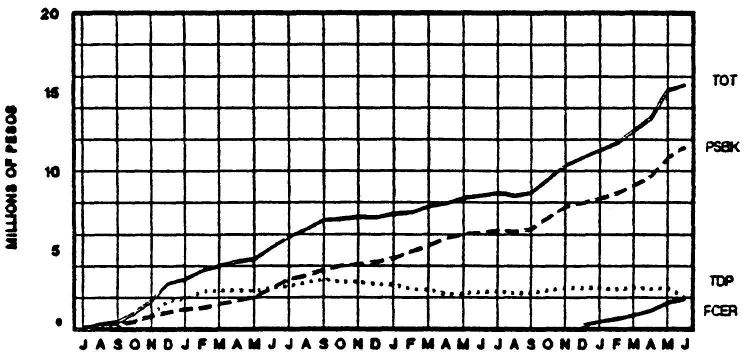


CHART 6

TOTAL PASSBOOK SAVINGS MOBILIZED

JULY 84 - JUNE 87

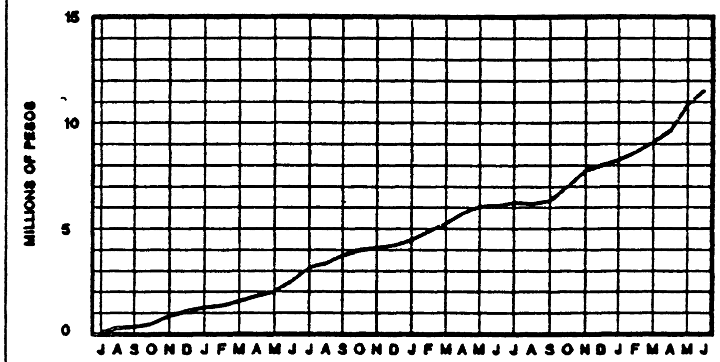


CHART 7

TOTAL TIME DEPOSITS MOBILIZED

JULY 1984 - JUNE 1987

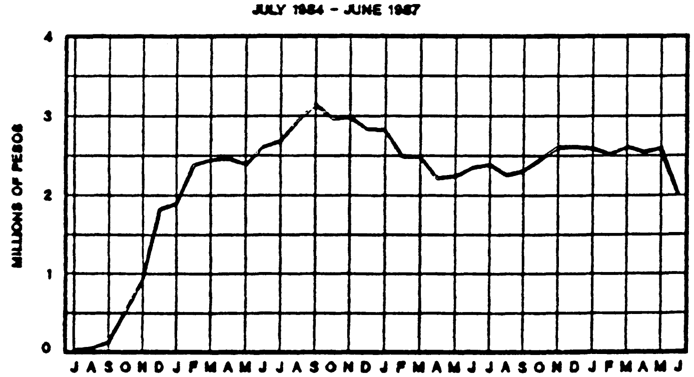
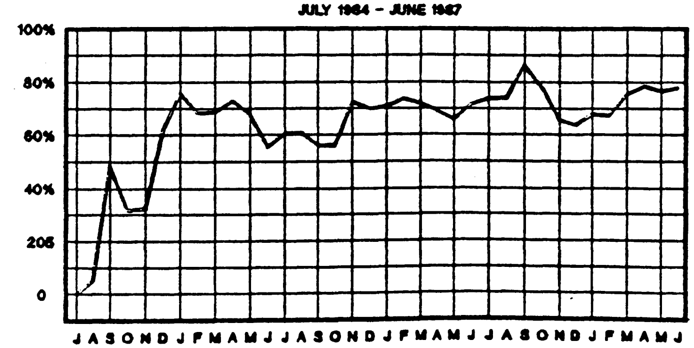


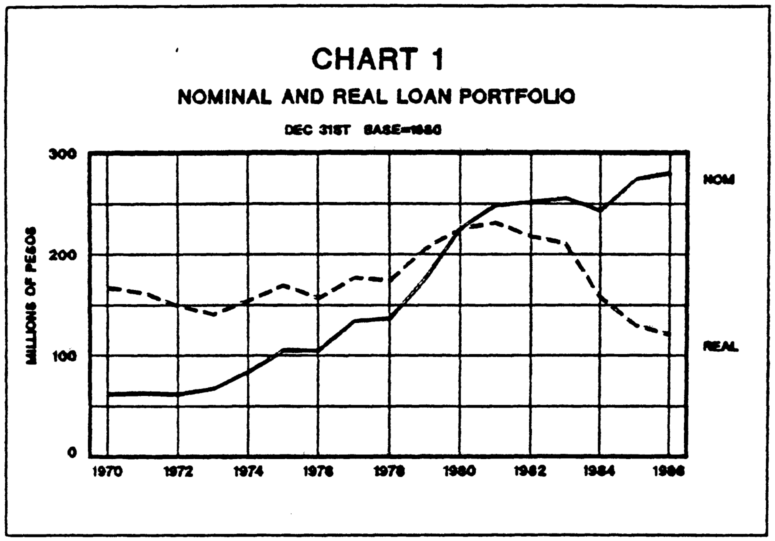
CHART 8

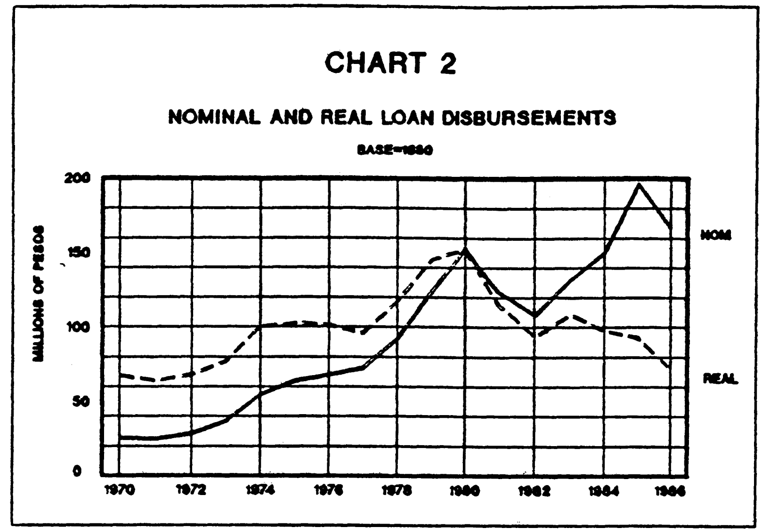
PERCENTAGE OF DISPOSABLE SAVINGS LOANED OUT
RESERVE REQUIREMENT OF 10 PERCENT

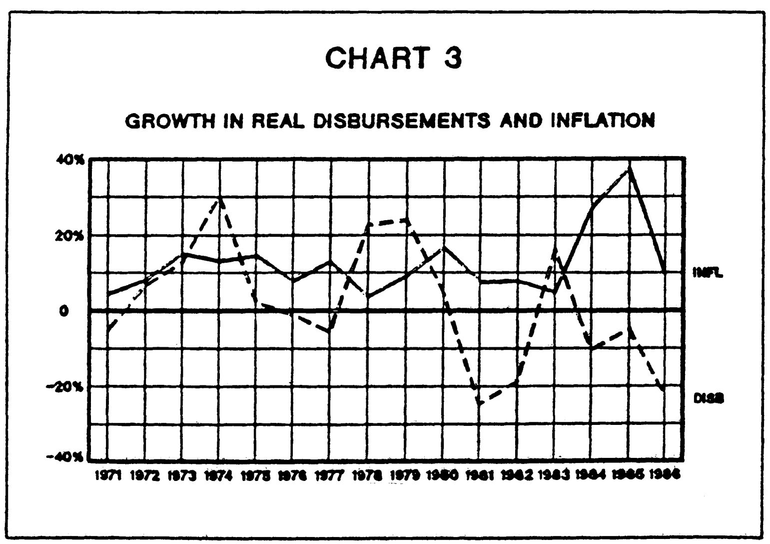
JULY 1984 - JUNE 1987

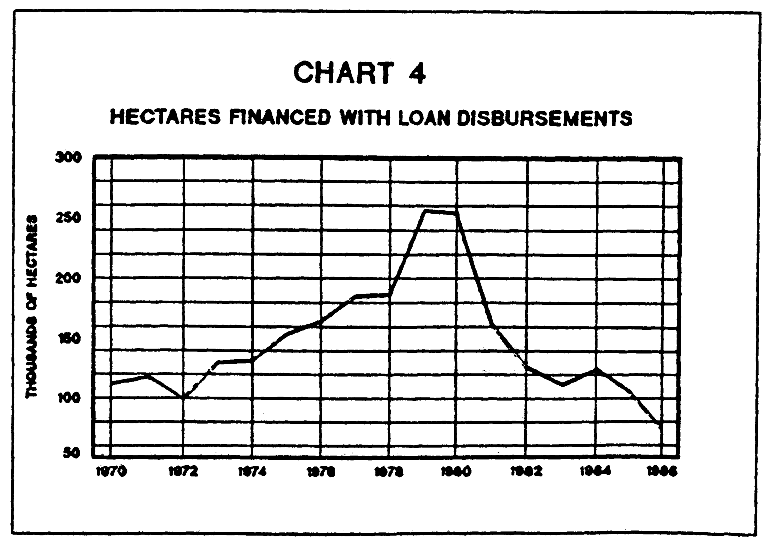


BANCO AGRICOLA OF THE DOMINICAN REPUBLIC









Apendix II

LA VEGA CREDIT UNION

CHART 1

NOMINAL AND REAL LOAN PORTFOLIO
JULY 31ST

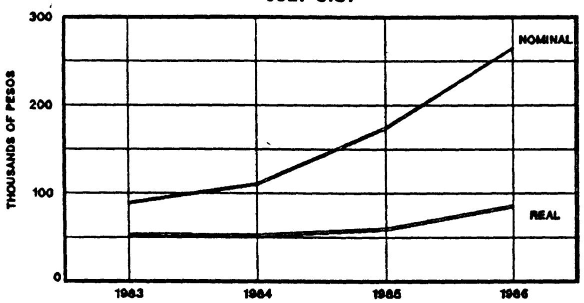


CHART 2

TOTAL SAVINGS, PASSBOOK, TIME DEPOSITS AND SHARE ACCOUNTS
JULY 31ST

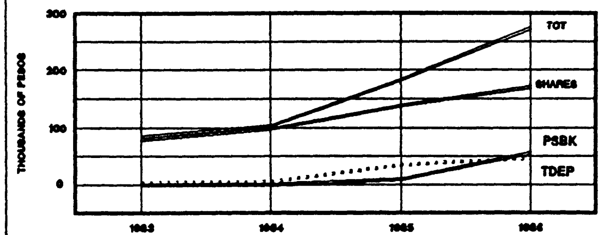


CHART 3

INTEREST RATE STRUCTURE AND INFLATION

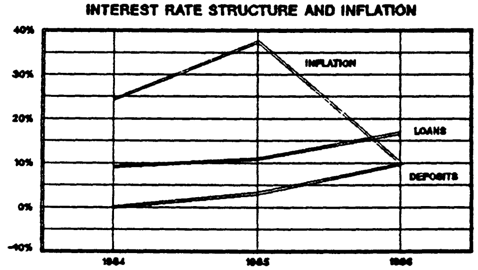


CHART 4

FINANCIAL MARGIN

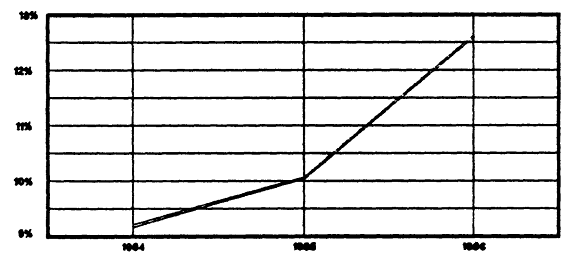


CHART 5

OPERATING COSTS/AVERAGE ASSETS

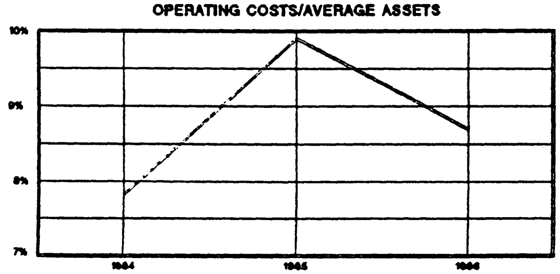
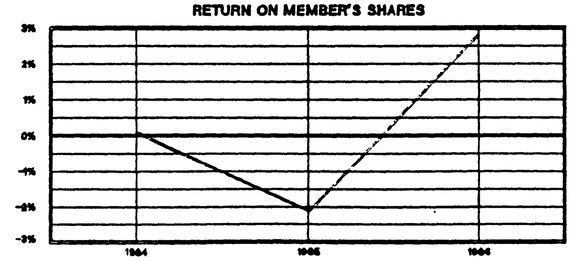


CHART 6

RETURN ON MEMBER'S SHARES



SAN JOSE CREDIT UNION

CHART 1

NOMINAL AND REAL LOAN PORTFOLIO
JANUARY 31ST

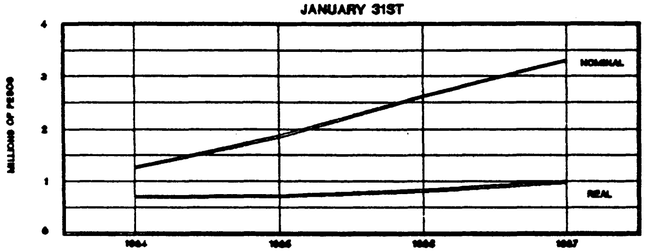


CHART 2

TOTAL SAVINGS, PASSBOOK, TIME DEPOSITS AND SHARE ACCOUNTS
JANUARY 31ST

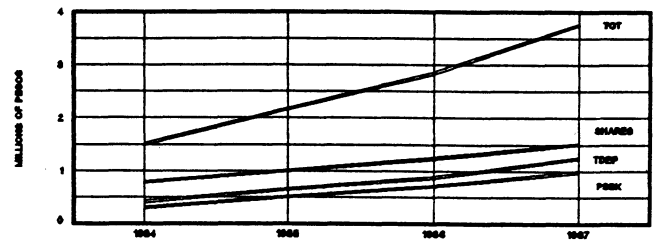


CHART 3

INTEREST RATE STRUCTURE AND INFLATION

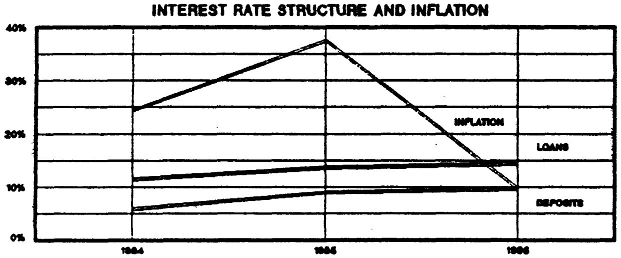


CHART 4

FINANCIAL MARGIN

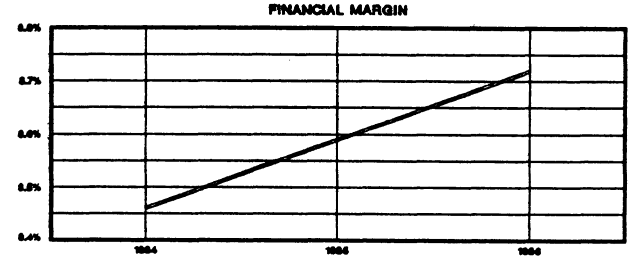


CHART 5

OPERATING COST/AVERAGE ASSETS

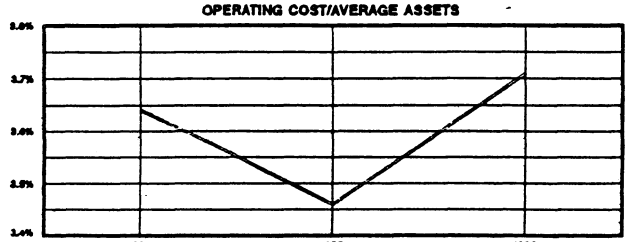
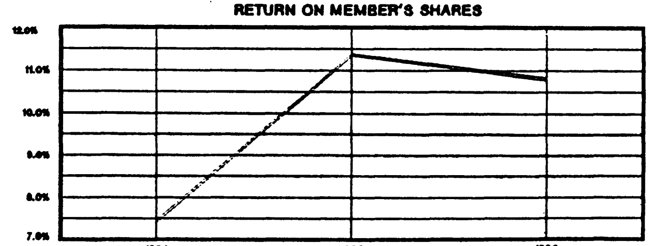


CHART 6

RETURN ON MEMBER'S SHARES



SANTA LUCIA CREDIT UNION

CHART 1

NOMINAL AND REAL LOAN PORTFOLIO
DECEMBER 31ST

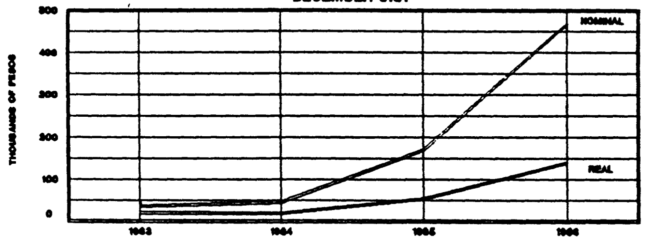


CHART 2

TOTAL SAVINGS, PASSBOOK, TIME DEPOSITS AND SHARE ACCOUNTS
DECEMBER 31ST

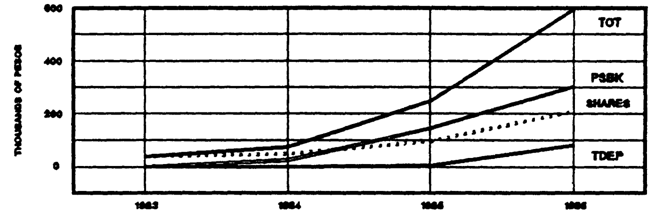


CHART 3

INTEREST RATE STRUCTURE AND INFLATION

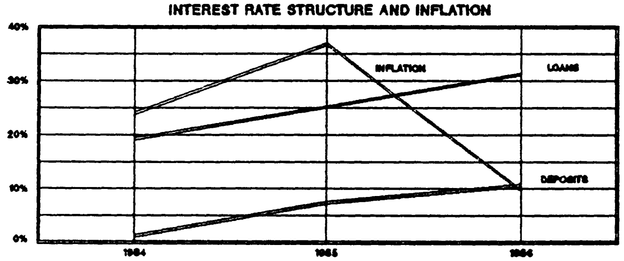


CHART 4

FINANCIAL INTERMEDIATION MARGIN

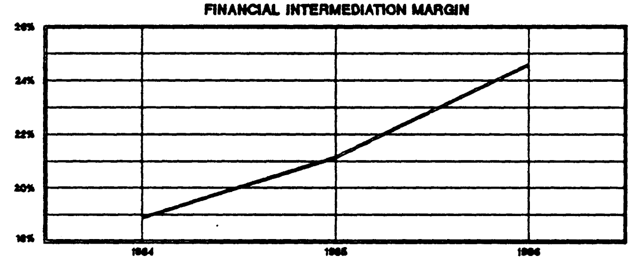


CHART 5

OPERATING COSTS/AVERAGE ASSETS

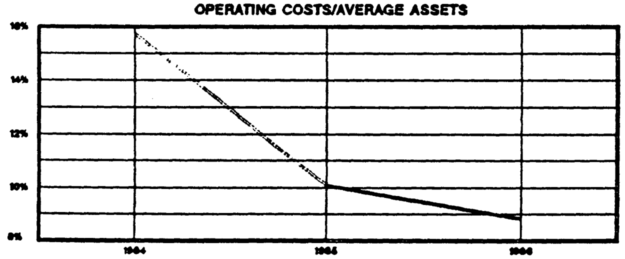
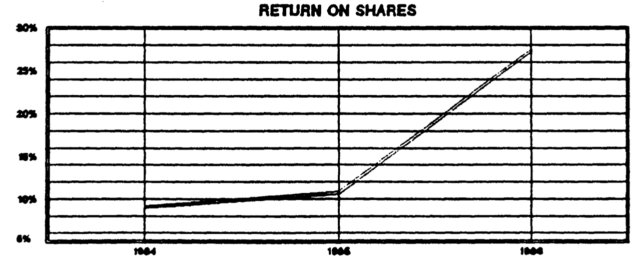


CHART 6

RETURN ON SHARES



VALLEJUELO CREDIT UNION

CHART 1

NOMINAL AND REAL LOAN PORTFOLIO
MARCH 31ST

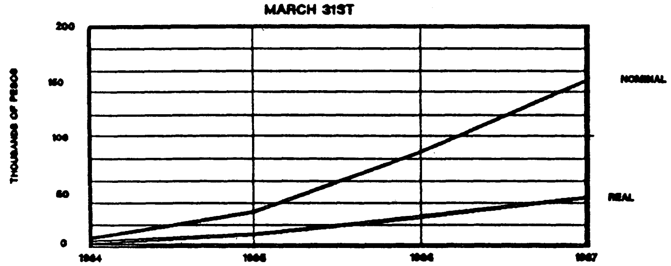


CHART 2

TOTAL SAVINGS, PASSBOOK, TIME DEPOSITS AND SHARE ACCOUNTS
MARCH 31ST

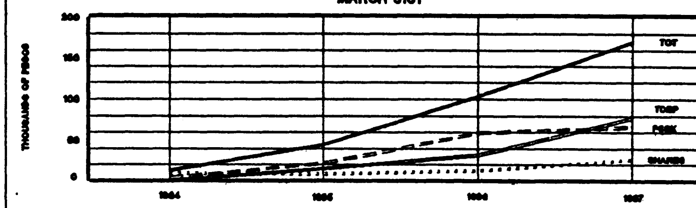


CHART 3

INTEREST RATE STRUCTURE AND INFLATION

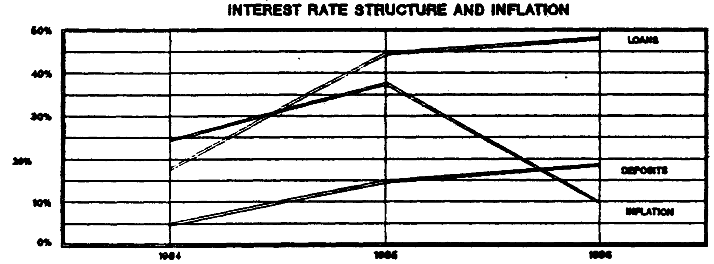


CHART 4

FINANCIAL MARGIN

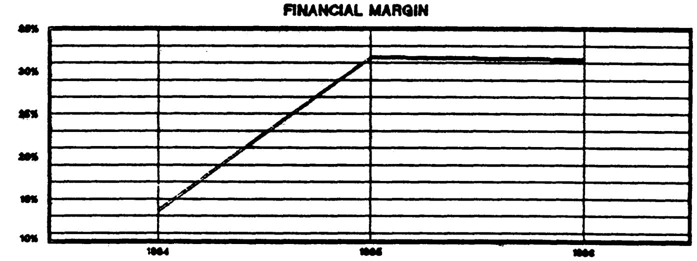


CHART 5

OPERATING COST/AVERAGE ASSETS

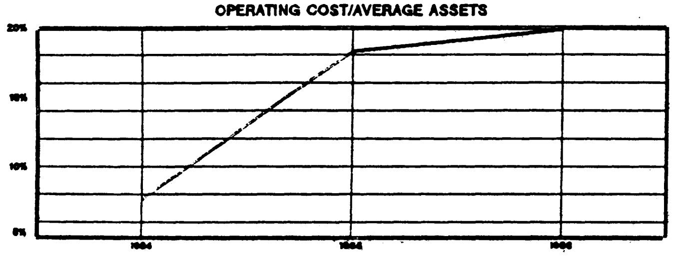
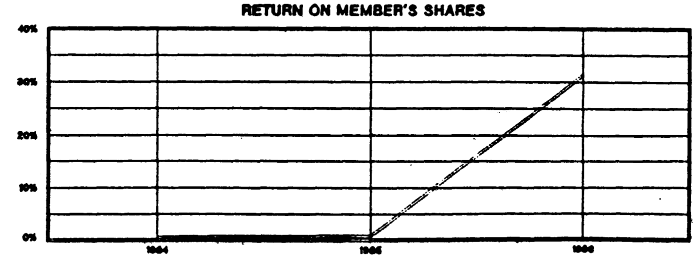


CHART 6

RETURN ON MEMBER'S SHARES



Endnotes

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